Tagline - A new word game from Merriam-Webster!

Tim Berners-Lee

British computer scientist

Also known as: Sir Tim Berners-Lee

Michael Aaron Dennis Britannica Editors July 30, 2026

• History

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Ask Anything

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Top Questions

- Who is Tim Berners-Lee?
- What important invention is Tim Berners-Lee known for?
- What inspired Tim Berners-Lee to create the World Wide Web?
- How does the World Wide Web work?

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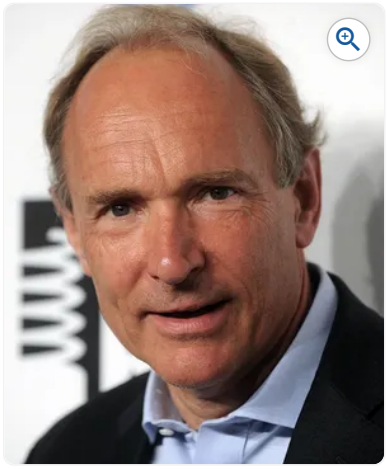

Tim Berners-Lee Tim Berners-Lee, 2014.

Tim Berners-Lee (born June 8, 1955, London, England) is a British computer scientist, generally credited as the inventor of the World Wide Web. In 2004, he was awarded a knighthood by Queen Elizabeth II of the United Kingdom and the inaugural Millennium Technology Prize (€1 million) by the Finnish Technology Award Foundation.

Computing came naturally to Berners-Lee, as both of his parents worked on the Ferranti Mark I, the first commercial computer. (*See* computer: The first stored-program machines.) After graduating in 1976 from the University of Oxford, Berners-Lee designed computer software Dorset, England. F

including a stint from June to December 1980 as a software engineering consultant at CERN, the European particle physics laboratory in Geneva.

Tim Berners-Lee Tim Berners-Lee, 2005.

While at CERN, Berners-Lee developed a program for himself, called Enquire, that could store information in files that contained connections (“links”) both within and among separate files—a technique that became known as hypertext. After leaving CERN, Berners-Lee worked for Image Computer Systems Ltd., located in Ferndown, Dorset, where he designed a variety of computer systems. In 1984 he returned to CERN to work on the design of the laboratory’s computer network, developing procedures that allowed diverse computers to communicate with one another and researchers to control remote machines. In 1989 Berners-Lee drew up a proposal for creating a global hypertext document system that would make use of the Internet. His goal was to provide researchers with the ability to share their results, techniques, and practices without having to exchange e-mail constantly. Instead, researchers would place such information “online,” where their peers could immediately retrieve it anytime, day or night. Berners-Lee wrote the software for the first Web server (the central repository for the files to be shared) and the first Web client, or “browser” (the program to access and display files retrieved from the server), between October 1990 and the summer of 1991. The first “killer application” of the Web at CERN was the laboratory’s telephone directory—a mundane beginning for one of the technological wonders of the computer age.

Britannica Quiz

Inventors and Inventions

What do you think?

- **Is the Internet “Making Us Stupid?”**

Explore the ProCon debate

Quick Facts

In full: Sir Tim Berners-Lee

Born: June 8, 1955, London, England (age 71)

Founder: World Wide Web Consortium

Inventions: World Wide Web • World Wide Web

On the Web: PBS - Amanpour and Company - He Invented the World Wide Web. HereÂ’s What H... *(Show more)*

From 1991 to 1993 Berners-Lee evangelized the Web. In 1994 in the United States he established the World Wide Web (W3) Consortium at the Massachusetts Institute of Technology's Laboratory for Computer Science. The consortium, in consultation with others, lends oversight to the Web and the development of standards. In 1999 Berners-Lee became the first holder of the 3Com Founders chair at the Laboratory for Computer Science. His numerous other honours included the National Academy of Engineering's prestigious Charles Stark Draper Prize (2007). Berners-Lee was the author, along with Mark Fischetti, of *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web* (2000).

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Ask Anything Quick Summary

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Top Questions

What is the Internet?

Who were key people involved with the creation of the Internet?

How does the Internet work?

Is the Internet dangerous?

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Internet, a system architecture that has revolutionized mass communication, mass media, and commerce by allowing various computer networks around the world to interconnect. Sometimes referred to as a "network of networks," the Internet emerged in the United States in the 1970s but did not become visible to the general public until the early 1990s. By 2020, approximately 4.5 billion people, or more than half of the world's population, were estimated to have access to the Internet. And that number is growing, largely due to the prevalence of "smart" technology and the "Internet of Things," where computer-like devices connect with the Internet or interact via wireless networks. These "things" include smartphones, appliances, thermostats, lighting systems, irrigation systems, security cameras. vehicles, even cities.

The Internet provides a capability so powerful and general that it can be used for almost any purpose that depends on information, and it is accessible by every individual who connects to one of its constituent networks. It supports human communication via social media, electronic mail (e-mail), “chat rooms,” newsgroups, and audio and video transmission and allows people to work collaboratively at many different locations. It supports access to digital information by many applications, including the World Wide Web.

What do you think?

- **Is the Internet “Making Us Stupid?”**

Explore the ProCon debate

The Internet has also proved to be a spawning ground for a large and growing number of “e-businesses” (including subsidiaries of traditional “brick-and-mortar” companies) that carry out most of their sales and services over the Internet. (*See* electronic commerce.)

Origin and development

Early networks

The first computer networks were dedicated special-purpose systems such as SABRE (an airline reservation system) and AUTODIN I (a defense command-and-control system), both designed and implemented in the late 1950s and early 1960s. By the early 1960s computer manufacturers had begun to use semiconductor technology in commercial products, and both conventional batch-processing and time-sharing

How does the Internet really work? How does the Internet really work? This video lets you ride shotgun with a packet of data...(more)

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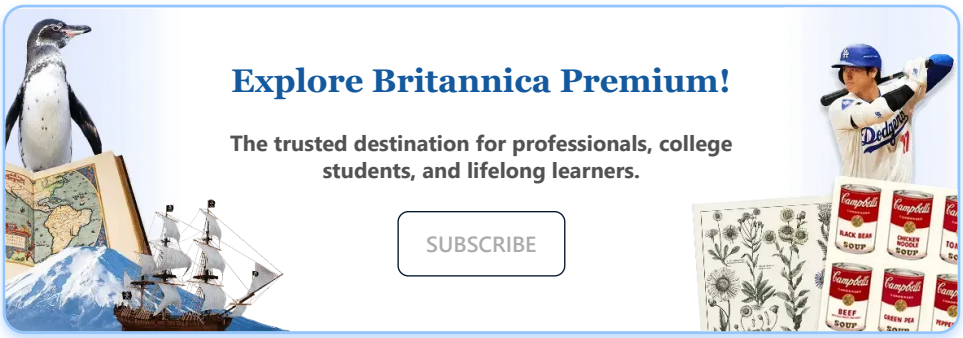
systems were in place in many large, technologically advanced companies. Time-sharing systems allowed a computer's resources to be shared in rapid succession with multiple users, cycling through the queue of users so quickly that the computer appeared dedicated to each user's tasks despite the existence of many others accessing the system "simultaneously." This led to the notion of sharing computer resources (called host computers or simply hosts) over an entire network. Host-to-host interactions were envisioned, along with access to specialized resources (such as supercomputers and mass storage systems) and interactive access by remote users to the computational powers of time-sharing systems located elsewhere. These ideas were first realized in ARPANET, which established the first host-to-host network connection on October 29, 1969. It was created by the Advanced Research Projects Agency (ARPA) of the U.S. Department of Defense. ARPANET was one of the first general-purpose computer networks. It connected time-sharing computers at government-supported research sites, principally universities in the United States, and it soon became a critical piece of infrastructure for the computer science research community in the United States. Tools and applications—such as the simple mail transfer protocol (SMTP, commonly referred to as e-mail), for sending short messages, and the file transfer protocol (FTP), for longer transmissions—quickly emerged. In order to achieve cost-effective interactive communications between computers, which typically communicate in short bursts of data, ARPANET employed the new technology of packet switching. Packet switching takes large messages (or chunks of computer data) and breaks them into smaller, manageable pieces (known as packets) that can travel independently over any available circuit to the target destination, where the pieces are reassembled. Thus, unlike traditional voice communications, packet switching does not require a single dedicated circuit between each pair of users.

Britannica Quiz

What Do You Actually Know About the Internet?

Commercial packet networks were introduced in the 1970s, but these were designed principally to provide efficient access to remote computers by dedicated terminals. Briefly, they replaced long-distance modem connections by less-expensive "virtual" circuits over packet networks. In the United States, Telenet and Tymnet were two such packet networks. Neither supported host-to-host communications; in the 1970s this was still the province of the research networks, and it would remain so for many years.

DARPA (Defense Advanced Research Projects Agency; formerly ARPA) supported initiatives for ground-based and satellite-based packet networks. The ground-based packet radio system provided mobile access to computing resources, while the packet satellite network connected the United States with several European countries and enabled connections with widely dispersed and remote regions. With the introduction of packet radio, connecting a mobile terminal to a computer network became feasible. However, time-sharing systems were then still too large, unwieldy, and costly to be mobile or even to exist outside a climate-controlled computing environment. A strong motivation thus existed to connect the packet radio network to ARPANET in order to allow mobile users with simple terminals to access the time-sharing systems for which they had authorization. Similarly, the packet satellite network was used by DARPA to link the United States with satellite terminals serving the United Kingdom, Norway, Germany, and Italy. These terminals, however, had to be connected to other networks in European countries in order to reach the end users. Thus arose the need to connect the packet satellite net, as well as the packet radio net, with other networks.

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